Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims

1. (Currently amended) An isolated DNA molecule comprising a DNA sequence encoding a polypeptide with a first amino acid sequence selected from the group consisting of the amino acid sequences of the polypeptides MTBN1, MTBN2, [[MTBN3,]] MTBN4, [[MTBN5,]] and MTBN7, [[and MTBN8,]]

or a second amino acid sequence identical to said first amino acid sequence but with conservative substitutions,

wherein said polypeptide has *Mycobacterium tuberculosis* specific antigenic and immunogenic properties.

2. (Original) An isolated portion of the DNA molecule of claim 1, said portion encoding a segment of said polypeptide shorter than the full-length polypeptide, said segment having *Mycobacterium tuberculosis* specific antigenic and immunogenic properties.

3. (Previously presented) A vector comprising:

(a) the DNA molecule of claim 1; and

(b) a regulatory sequence operationally linked to said DNA sequence, said regulatory sequence allowing for expression of the polypeptide encoded by said DNA sequence in a cell.

4. (Previously presented) A vector comprising:

(a) the DNA molecule of claim 2; and

(b) a regulatory sequence operationally linked to said DNA sequence, said regulatory sequence allowing for expression of the polypeptide encoded by said DNA sequence in a cell.

5. (Original) A cell transformed with the vector of claim 3.

6. (Original) A cell transformed with the vector of claim 4.

7. (Original) A composition comprising the vector of claim 3 and a pharmaceutically acceptable diluent or filler.

8. (Original) A composition comprising the vector of claim 4 and a pharmaceutically acceptable diluent or filler.

9. (Previously presented) A composition comprising at least two DNA sequences, each encoding a polypeptide of the *Mycobacterium tuberculosis* complex that is not a polypeptide encoded by the genome of cells of the Bacille Calmette Guerin (BCG) strain of *Mycobacteria bovis*, said DNA sequences being operationally linked to a regulatory sequence which allows for expression of each said polypeptide in a cell of a vertebrate,

wherein at least one of said at least two DNA sequences is a DNA molecule of claim 1.

10. (Previously presented) A composition comprising at least two DNA sequences, each encoding a functional fragment of a polypeptide of the *Mycobacterium tuberculosis* complex, said DNA sequences being operationally linked to a regulatory sequence which allows for expression of each said polypeptide in a cell of a vertebrate,

wherein at least one of said at least DNA sequences is a DNA molecule of claim 2.

11. (Currently amended) An isolated polypeptide with a first amino acid sequence selected from the group consisting of the sequences of the polypeptides MTBN1, MTBN2, [[MTBN3,]] MTBN4, [[MTBN5,]] and MTBN7, [[and MTBN8,]]

or a second amino acid sequence identical to said first amino acid sequence but with conservative substitutions,

wherein said polypeptide has *Mycobacterium tuberculosis* specific antigenic and immunogenic properties.

12. (Original) An isolated segment of the polypeptide of claim 11, said segment being shorter than the full-length polypeptide and having *Mycobacterium tuberculosis* specific antigenic and immunogenic properties.

13. (Original) A composition comprising the polypeptide of claim 11 and a pharmaceutically acceptable diluent or filler.

14. (Original) A composition comprising a functional fragment of the polypeptide of claim 12 and a pharmaceutically acceptable diluent or filler.

15. (Previously presented) A composition comprising at least two polypeptides of the *Mycobacterium tuberculosis* complex, each polypeptide not being encoded by the genome of the cells of the BCG strain of *Mycobacterium bovis*, wherein at least one of said at least two polypeptides is a polypeptide of claim 1.

16. (Previously presented) A composition comprising functional fragments of at least two polypeptides of the *Mycobacterium tuberculosis* complex, each polypeptide not being encoded by the genome of cells of the Bacille Calmette Guerin (BCG) strain of *Mycobacteria bovis*, wherein at least one of said at least polypeptides is a segment of claim 2.

17. (Previously presented) A method of diagnosis comprising:

(a) administration of the composition of claim 15 to a subject suspected of having or being susceptible to *Mycobacterium tuberculosis* infection; and

(b) detecting an immune response in said subject to said composition as an indication that said subject has been exposed to *Mycobacterium tuberculosis*.

18. (Previously presented) A method of diagnosis comprising:

(a) administration of the composition of claim 16 to a subject suspected of having or being susceptible to *Mycobacterium tuberculosis* infection; and

(b) detecting an immune response in said subject to said composition as an indication that said subject has been exposed to *Mycobacterium tuberculosis*.

19. – 34. (Cancelled)

35. (Currently amended) The DNA molecule of claim 1, wherein the DNA sequence is selected from the group of DNA sequences consisting of the *mtbn1*, *mtbn2,* [[*mtbn3,*]] *mtbn4,*[[*mtbn5,*]] and *mtbn7*[[, and *mtbn8*]].

36. (Previously presented) The DNA molecule of claim 35, wherein the DNA sequence is the DNA sequence *mtbn4*.

37. (Previously presented) The DNA molecule of claim 1, wherein the first amino acid sequence is the amino acid sequence of the polypeptide MTBN4.

38. (Previously presented) The isolated portion of DNA of claim 2, wherein the first amino acid sequence is the amino acid sequence of the polypeptide MTBN4.

39. (Previously presented) The vector of claim 3, wherein the first amino acid sequence is the amino acid sequence of the polypeptide MTBN4.

40. (Previously presented) The vector of claim 4, wherein the first amino acid sequence is the amino acid sequence of the polypeptide MTBN4.

41. (Previously presented) The cell of claim 5, wherein the first amino acid sequence is the amino acid sequence of the polypeptide MTBN4.

42. (Previously presented) The cell of claim 6, wherein the first amino acid sequence is the amino acid sequence of the polypeptide MTBN4.

43. (Previously presented) The composition of claim 7, wherein the first amino acid sequence is the amino acid sequence of the polypeptide MTBN4.

44. (Previously presented) The composition of claim 8, wherein the first amino acid sequence is the amino acid sequence of the polypeptide MTBN4.

45. (Previously presented) The composition of claim 9, wherein the first amino acid sequence is the amino acid sequence of the polypeptide MTBN4.

46. (Previously presented) The composition of claim 10, wherein the first amino acid sequence is the amino acid sequence of the polypeptide MTBN4.

47. (Previously presented) The polypeptide of claim 11, wherein the first amino acid sequence is the amino acid sequence of the polypeptide MTBN4.

48. (Previously presented) The isolated segment of claim 12, wherein the first amino acid sequence is the amino acid sequence of the polypeptide MTBN4.

49. (Previously presented) The composition of claim 13, wherein the first amino acid sequence is the amino acid sequence of the polypeptide MTBN4.

50. (Previously presented) The composition of claim 14, wherein the first amino acid sequence is the amino acid sequence of the polypeptide MTBN4.

51. (Previously presented) The composition of claim 15, wherein the first amino acid sequence is the amino acid sequence of the polypeptide MTBN4.

52. (Previously presented) The composition of claim 16, wherein the first amino acid sequence is the amino acid sequence of the polypeptide MTBN4.

53. (Previously presented) The composition of claim 17, wherein the first amino acid sequence is the amino acid sequence of the polypeptide MTBN4.

54. (Previously presented) The composition of claim 18, wherein the first amino acid sequence is the amino acid sequence of the polypeptide MTBN4.